My Teacher Is a Machine: Understanding Students' Perceptions of AI Teaching Assistants in Online Education

Abstract

ABSTRACT An increase in demand for online education has led to the creation of a new technology, machine teachers, or artificial intelligence (AI) teaching assistants. In fact, AI teaching assistants have already been implemented in a small number of courses in the United States. However, little is known about how students will perceive AI teaching assistants. Thus, the present study investigated students' perceptions about AI teaching assistants in higher education by use of an online survey. Primary findings indicate that perceived usefulness of an AI teaching assistant and perceived ease of communication with an AI teaching assistant are key to understanding an eventual adoption of AI teaching assistant-based education. These findings provide support for AI teaching assistant adoption. Based on the present study's findings, more research is needed to better understand the nuances associated with the learning experience one may have from an AI teaching assistant.